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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,546	01/21/2004	Shuuji Yano	042043	8625
38834	7590	10/06/2005	EXAMINER	
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036			VU, PHU	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

10/760,546

Applicant(s)

YANO ET AL.

Examiner

Phu Vu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 June 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 6/30/2005 have been fully considered but they are not persuasive.

**Regarding claims 1-16**, applicant argues that Yano B discloses isotropic material only in conjunction with its birefringent film, whereas Yano A discloses a compensation layer in conjunction with a birefringent film (transparent layer), however compensation layers by definition are birefringent because a retarder causes a delay in one of several optical components in light. Yano A discloses a "compensator" and a "birefringent film" (transparent layer) which are simply two birefringent elements. Yano B is used to show that each of its "birefringent films") can be made of birefringent material such as that retardation value  $n_x = n_y > n_z$  and an isotropic base. Sekiguchi is merely used to describe a property common to all isotropic materials which is they have zero retardance thus have zero distortion. The fact that it is used in a touch panel does not bear any significance with respect to this. Therefore Sekiguchi provides motivation to combine Yano A and B as Sekiguchi provides a general property of isotropic materials. The rejections of claims 1-11 stand as below.

With respect to claim 10, Yano A discloses polarizing film laminated on the side opposed to transparent compensation layer (13) thus lamination of a polarizer on the base material side (bottom side of element 13) would result in a structure of figure 1 wherein element 2 the polarizer is found below 13.

### ***Claim Objections***

Claim 16 is objected to because of the following informalities: Claim 16 currently depends on itself. For examining purposes it will be treated as depending on claim 15. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-9 and 11 are rejected under 35 U.S.C. 103(a) as being obvious over Yano et. al. US Publication No. 2002/0034596 (Yano A) in view of Yano et. al US Publication No. 2002/0145804 (Yano B), and in further in view of Sekiguchi US Patent No. 6771327.**

Yano teaches an optical film comprising:

an optical compensation (fig. 1 element 13) layer showing refractive index anisotropy satisfying a relationship  $n_x^2 \sim n_y^2 > n_z^2$ , when a direction where an in-plane reflective index gives a maximum is defined as X-axis, a direction perpendicular to X-axis as Y-axis, a thickness direction as Z-axis, and when refractive indexes in each axial direction are defined as  $n_x^2$ ,  $n_y^2$  and  $n_z^2$  (see [0023]);

Yano fails to teach on one side of the base material film in which reach of the refractive index differences represented with  $|n_{x1} - n_{y1}|$ ,  $|n_{x1} - n_{z1}|$  and  $|n_{y1} - n_{z1}|$  has values of 0.0006 or less, respectively, with a direction perpendicular to X-axis as Y-axis,

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a thickness direction of the film as Z-axis, and when refractive indexes in each axial direction.

However Yano (B), teaches a optical film (birefringent film or transparent layer) with an isotropic material base ([0021]). Isotropic materials have an index of refraction independent of the direction thus  $n_x$ ,  $n_y$ , and  $n_z$  are considered equal. Therefore  $|n_x - n_y|$ ,  $|n_y - n_z|$ , and  $|n_x - n_z|$  would all be equal to zero.

Sekiguchi teaches an isotropic substrate (base material) to eliminate distortion and retardation in the substrate (see column 28 lines 17-28).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art use an isotropic base which has  $|n_x - n_y|$ ,  $|n_y - n_z|$  and  $|n_x - n_z|$  all zero (less than .0006) to provide zero retardation and reduce distortion.

**Regarding claim 2**, the primary reference teaches the optical compensation layer preferably 10 micrometers or less (see [0020]).

**Regarding claim 3**, the primary reference teaches optical compensation layer is formed of an organic material ([0021] cholesteric liquid crystal polymer).

**Regarding claim 4**, the primary reference teaches the optical compensation layer is a cholesteric liquid crystal layer ([0021]).

**Regarding claim 5**, the claim mirrors claim 1 in method format, and does not introduce any new steps which would not be obvious by the device of claim 1. A step of orienting the optical compensation layer is also claimed however merely placement of the optical compensation layer in the device can be considered orientation, therefore

this limitation is also met by the device of claim 1. Therefore the method is obvious over the device of claim 1.

**Regarding claim 6**, the primary reference teaches the optical compensation layer preferably 10 micrometers or less ([0020]).

**Regarding claim 7**, the primary reference teaches optical compensation layer is formed of an organic material ([0021] cholesteric liquid crystal polymer).

**Regarding claim 8**, the primary reference teaches the optical compensation layer is a cholesteric liquid crystal layer.

**Regarding claim 9**, the primary reference teaches at least one layer (fig. 1 element 2) of the optical element further laminated onto the optical film according to claim 1 (see Yano A [0024]).

**Regarding claim 11**, the reference teaches a display that uses the optical film (see fig. 1) and (Yano A [0024]).

**Regarding claims 12 and 14**, in combining Yano A in view of Yano B in view of Sekiguchi the structure will have layer 13 (transparent layer) have a birefringent material directly on an isotropic base (see response to arguments and claim 1 rejection).

**Regarding claim 13**, the limitation of coating is a product-by-process limitation. Product-by-process limitations only define a claim as to the structure that the process implies. The specification mentions coating but fails to describe the exact structure that it implies. Thus it is interpreted as being formed directly on as per claims 12 and 14.

**Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yano et. al. US Publication No. 2002/0034596 (Yano A), in view of Yano et. al US**

**Publication No. 2002/0145804 (Yano B), Sekiguchi US Patent No. 6771327 and Yoshimi et. al. Japanese Publication No. 2001-042127.**

Yano and Sekiguchi teach all the limitations of claim 10 except the other element is a polarizer laminated on a base material film side. Yano A, Yano B, nor Sekiguchi teach a polarizer however, this is not located on the base material film side. Yoshimi teaches a polarizer on the base material side (opposite the retarder side which is element 1 in fig 1) to provide protection to the polarizer (see [0028] of machine translation). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to provide the polarizer on the base material side to provide additional protection to the polarizer.

**Regarding claim 15**, in combining Yano A in view of Yano B in view of Sekiguchi the structure will have layer 13 (transparent layer) have a birefringent material directly on an isotropic base (see response to arguments and claim 1 rejection).

**Regarding claim 16**, the limitation of coating is a product-by-process limitation. Product-by-process limitations only define a claim as to the structure that the process implies. The specification mentions coating but fails to describe the exact structure that it implies. Thus it is interpreted as being formed directly on as per claims 12 and 14.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu Vu whose telephone number is (571)-272-1562. The examiner can normally be reached on 8AM-5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu Vu  
Examiner  
AU 2871



JUNG T. NGUYEN  
PATENT EXAMINER